



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,337	02/13/2001	Natarajan S. Ramesh	CSAC-0009	9820
28236	7590	03/03/2006		
CRYOVAC, INC. SEALED AIR CORP P.O. BOX 464 DUNCAN, SC 29334			EXAMINER CHANG, VICTOR S	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

MAILED
MAR 03 2006
GROUP 1700

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/782,337

Filing Date: February 13, 2001

Appellant(s): RAMESH ET AL.

John Harrelson, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 10, 2006 appealing from the Office action mailed May 6, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 4,469,741	Akao	9-1984
--------------	------	--------

US 5,968,630	Foster	10-1999
--------------	--------	---------

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-7, 9, 10, 13-16, 18, 19, 22, 23 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akao (US 4469741) in view of Foster (US 5968630).

Akao's invention is directed to laminated sheets for use as construction materials (column 1, lines 6-9), particularly floor materials having good cushioning characteristics (column 6, lines 48-49). The sheets comprise two thermoplastic resin film layers bonded via an adhesive layer to a central foam layer (Example 1 and Fig. 2). Films made of polyolefin resins, such as polyethylene, polypropylene, etc., are preferred (column 2, lines 51-54). Materials which can be used for the preparation of the foam layer include olefin-based resins, such as polyethylene (column 3, line 34 to column 4, line 1). Materials, which can be used in the preparation of the adhesive layer, include thermoplastic resins such as low density polyethylene, polypropylene, etc. (column 3, lines 1-7).

For claims 1, 2, 18 and 19, Akao lacks a teaching that "at least one edge of the second film extends beyond a corresponding edge of the foam sheet". However, it is noted Foster's invention is directed to a laminate film/foam flooring composite of a low density polyethylene film layer adhered to a low density polyethylene foam layer by means of a very thin layer of low density polyethylene (abstract). The laminate is usually in long strips, so when it is installed one edge of one strip overlies the extended portion of the polyethylene film of an adjacent strip (abstract and Figs. 1 and 3), the result is more efficient and provides labor cost savings (column 2, lines 49-50). As such, in the absence of unexpected results, it would have been obvious to one of

ordinary skill in the art of flooring composite to modify Akao's laminated sheets with one edge of the second film extends beyond a corresponding edge of the foam sheet, as taught by Foster, motivated by the desire provide a flooring material for efficient installation, and labor cost savings. It should also be noted that the since Akao expressly teaches that adhesive layers used to bond the film layers may be comprised of various adhesives such as low-density polyethylene adhesives, etc., and in Example 1, Akao shows that the laminate is formed by an adhesive layer composed of low density polyethylene (column 4, line 52), the combined teachings of Akao and Foster clearly render the instantly claimed laminate obvious as claimed, because after lamination and cooling the low density polyethylene adhesive and the outer low density polyethylene films lose their separate identities and integrally form two outer low density polyethylene films, which results in a final product reads on the instant as claimed.

Finally, with respect to the product-by-process recitation "heat-laminated to" in claim 1, the Examiner infers no structural or chemical effect that distinguishes the claimed product from the prior art applied and repeats that the method limitation has not been shown on the record to produce a patentably distinct article, as such the formed articles are rendered *prima facie* obvious.

For claims 3 and 4, Foster expressly teaches that the polyethylene foam layer has a low-density within 1 to 5 pcf (pounds per cubic foot, or pounds/ft³) (column 12, line 36).

For claim 5, Akao teaches that the preferable foam layer thickness is about 5 to 50 mm (column 4, lines 13-14). Further, Foster also teaches that the polyethylene foam has a thickness of 0.03 to 0.1 inches (column 12, lines 35-36).

For claims 6, 7, 15 and 16, Akao teaches that the preferable film thickness is 15-100 microns, i.e., 0.00059-0.004 inches (column 2, lines 65-67).

For claim 9, Akao expressly teaches polyethylene film as preferred, as set forth above.

For claim 10, Foster expressly teaches low density polyethylene film layer, as set forth above.

For claims 13 and 14, Foster teaches that the polyethylene film can be formed by means of a conventional polyethylene film extrusion process or any other suitable film-forming process. In a typical, conventional polyethylene film extrusion process termed the blown tubing process, the thin polyethylene film is extruded on a continuous basis by extruding a tube of the polyethylene in molten state through an annular nozzle behind which is a device through which air is introduced into the emerging tube. The air expands the tube to several times its original diameter. The blowup (expansion) of the tube results in the film having orientation in both directions.

For claims 22 and 23, Foster teaches applying a double-sided adhesive tape to the extended edge of the film sheet of their film/foam laminate to adhere adjacent film/foam laminate strips so that they are completely non-movable in relation to one another. Foster also discloses applying a removable layer to the top of the double-sided adhesive tape to prevent the film/foam laminate from sticking to itself during

manufacture. As such, in the absence of unexpected results, it would have been obvious to the skilled artisan at the time this invention was made to modify Akao's flooring laminate with a double-sided adhesive tape to the extended edge of the film sheet, as taught by Foster, motivated by the desire to produce a flooring material which is easy to install, and labor cost savings.

For claim 29, Foster expressly teaches that blown tubing process is best for preparing low density polyethylene film, and the blowup (expansion) of the tube results in the film having orientation in both directions (column 7, lines 11-14).

For claim 30, Foster expressly teaches that a two sided adhesive tape can be affixed to the extended edge of the polyethylene film (column 7, lines 59-62).

For claim 31, Foster expressly teaches that preferably a removable (release) layer is located over the top surface of the adhesive tape (column 8, lines 1-4).

(10) Response to Argument

Appellants' argument "... the Akao patent describes a laminate composition for use as a wrapping material or construction material, having strength and/or cushioning characteristics. The Akao patent does not suggest that providing a water vapor barrier is a desired characteristic of the composition ... also does not suggest modifying the laminate by providing an extended film edge ... one skilled in the art would have no reason to look to the Foster reference to provide the vapor barrier properties offered by an extended film edge ... the assertion that the Akao and Foster patents should be combined is impermissible use of hindsight ..." (Brief, page 4, second paragraph) has been carefully considered, but is not persuasive. First, the Examiner wishes to repeat

Art Unit: 1771

that Akao's invention is directed to laminated sheets for use as construction materials, particularly floor materials having good cushioning characteristics, as set forth above.

Second, in response to Appellants' argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the instant case, nothing that was relied on could be gleaned only from Appellants' disclosure. Clearly Foster offers benefits that could be useful to a practitioner of Akao. Third, in response to Appellants' above-mentioned argument that "... The Akao patent does not suggest that providing a water vapor barrier is a desired characteristic of the composition ...", it should be noted that the fact that Appellants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Specifically, the Examiner repeats the motivation of combining Akao and Foster as follows: In the absence of unexpected results, it would have been obvious to one of ordinary skill in the art of flooring composite to modify Akao's laminated sheets with one edge of the second film extends beyond a corresponding edge of the foam

Art Unit: 1771

sheet, as taught by Foster, motivated by the desire provide a flooring material for efficient installation, and labor cost savings.

With respect to Appellants' argument "... No evidence is presented ... any saving in cost of installation would offset the increased cost of manufacture associated with use of the extended edge strip ..." (Brief, page 4, bottom paragraph), the Examiner asserts that proper motivation for combining the teachings of Akao and Foster has been provided, as set forth above. More particularly, since the prior art itself makes the suggestion, the prior art is the evidence of cost savings. Further, Appellants allegation is lacking, because Appellants do not refute the statements of prior art with any factual evidence which is contrary to the statement of prior art. Appellants' argument is not persuasive.

With respect to Appellants' argument "... Because claim 1 uses "consisting essentially of" as the transition phrase, the claim does not permit an additional independent layer to be utilized ... The Akao patent, however, uses a separate adhesive layer to attach the film to the porous sheet ... and thus would not produce a film that is heat-laminated to the porous layer." (Brief, second full paragraph), the Examiner repeats since Akao expressly teaches that adhesive layers used to bond the film layers may be comprised of various adhesives such as low-density polyethylene adhesives, etc., and in Example 1, Akao shows that the laminate is formed by an adhesive layer composed of low density polyethylene (column 4, line 52), the combined teachings of Akao and Foster clearly render the instantly claimed laminate obvious as claimed, because after lamination and cooling the low density polyethylene adhesive

Art Unit: 1771

and the outer low density polyethylene films lose their individual identities and integrally form two outer low density polyethylene films, which reads on the instantly claimed invention. Also, “consisting essentially of” only limits the claims such that only materials/elements that affect the basic and novel characteristics of the invention are excluded. Instantly, Appellants have not shown, or attempted to show, what basic and novel characteristics are affected by Akao’s use of an adhesive film, and Appellants have not identified what the basic and novel characteristics of the invention are. Further, the claim recites the layers are “heat-laminated”, after a review of Appellants’ specification, one sees that “heat-laminated” is not defined but Appellants effect the heat lamination by using a low melt material to bond the film to the foam (note: in specification, page 3, bottom full paragraph, the first film is described as including a bonding layer. So is the second film layer described as having a bonding layer in the following paragraph). From this, the only difference between the claimed bonding and the prior art technique is when the bonding layer is provided, and the final result is exactly the same, i.e., a foam bonded to a film through a low melt bonding (adhesive) layer.

Finally, with respect to Appellants’ argument “... Akao ... teaches away from instantly claimed inventions. According to Akao patent “*heat-sealing* the films ... is not desirable ... (col.2, line 66 to col. 3, line 2) ...” (Brief, page 5, bottom paragraph), the Examiner points out that Akao discusses heat-sealing in the background of the prior art in columns 1-2, not columns 2-3 as indicated in the Brief, that it is discussing heat-sealing, not heat laminating. Further, the heat-sealing, as referred to by Akao, is

different from the heat-laminating done by Appellants, since the heat-sealing discussed by Akao is practiced without a bonding layer. Therefore, there is no teaching away in Akao. The comments of Appellants do not show that the bonding structure of Akao is any different from the claimed structure in the final product.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Victor S. Chang
Victor S. Chang
Examiner

Conferees:

Terrel H. Morris *Terrel H. Morris*

Carol D. Chaney *Carol D. Chaney*

Terrel Morris
TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700